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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,339	08/03/2000	Carl T Wittwer	7475-66667	9681
23643	7590	02/13/2004	EXAMINER	
BARNES & THORNBURG 11 SOUTH MERIDIAN INDIANAPOLIS, IN 46204			BEISNER, WILLIAM H	
			ART UNIT	PAPER NUMBER

1744

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/631,339

Applicant(s)

WITTWER ET AL

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/2/00.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 02 Nov. 2000 has been considered and made of record.

Claim Objections

2. Claims 1 and 7 are objected to because of the following informalities: These claims do not end with a period. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-9, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Seubert et al.(US 5,785,926).

With respect to claims 1 and 7, the reference of Seubert et al. discloses a container for holding a fluidic biological sample that includes a receiving portion (94, 84, 54) and a reaction portion (38). A liquid sample positioned within the receiving portion (94, 84, 54) or would be

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capable of flowing into reaction portion (38). As shown in Figure 17, the receiving portion (94, 84, 54) has a volume greater than the reaction portion (38). The reaction volume is not greater than 1ml or 10,000microliters(See column 5, lines 57-63). With respect to the recited thermal conductivity of the reaction portion, the reference of Seubert et al. discloses that the reaction portion is made of glass which is a material disclosed by the instant specification as a material with the claimed thermal conductivity (See page 53 of the instant specification).

With respect to claims 2 and 3, receiver portion (94) is made of a thermoplastic material and is funnel-shaped (See column 5, lines 33-35).

With respect to claim 5, the reaction volume is not greater than 10microliters (See column 5, line 58).

With respect to claim 6, the glass capillary is inherently transparent.

With respect to claims 8 and 9, the reaction volume is not greater than 1ml and is between about 0.01microliter to about 100microliter (See column 5, line 58).

With respect to claims 14 and 15, the reaction portion has a v:sa ratio of less than 1mm or 0.25 mm (See column 5, lines 57-63).

With respect to claim 16, the glass capillary is inherently optically transmissible for light of the claimed wavelength.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 4, 10, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seubert et al.(US 5,785,926).

The reference of Seubert et al. has been discussed above.

With respect to claims 4, 17 and 18, the use of a stopper positioned within receiving portion (84 or 94) would have been obvious for the known and expected result of sealing off the opening of the capillary device when disconnected from element (54). Sealing with a stopper device would prevent contamination of the contents of the device.

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With respect to claim 10, while the preferred capillary diameter of disclosed by Seubert et al. is not within the claimed range, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum capillary dimensions based merely on the intended volumes of samples to be manipulated within the reaction volume.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seubert et al.(US 5,785,926) in view of Bauman et al.(US 3,876,376).

The reference of Seubert et al. has been discussed above.

With respect to claim 12, the reference of Bauman et al. discloses that it is known in the art to seal the ends of a capillary tube during incubation (See column 5, lines 17-23).

In view of this teaching, when incubating the capillary of the primary reference of Seubert et al., it would have been obvious to one of ordinary skill in the art to seal the end as disclosed by the reference of Bauman et al. (See flat tip 12) for the known and expected result of sealing the tube during an incubation step.

10. Claims 7-9 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (US 5,260,032).

The reference of Muller discloses a sample holding device that includes a receiver portion (12) and a reaction portion (14). The reaction portion (14) has a volume between 0.01microliters and 100miroliters (See column 5, lines 5-24). Two spaced apart parallel plates define the reaction portion.

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The reference is silent as to the material of the device.

However, glass is notoriously well known in the art of optical observation devices in view of its recognized optical clarity.

As a result, it would have been obvious to one of ordinary skill in the art to construct the device of the primary reference from an optical quality glass material for the known and expected result of providing the device of an art recognized optical material.

With respect to the recited thermal conductivity of the reaction portion, the reaction portion would be made of glass which is a material disclosed by the instant specification as a material with the claimed thermal conductivity (See page 53 of the instant specification).

With respect to claims 14 and 15, the claimed volume-to-surface area ratio would be met by the dimensions disclosed with respect to the reaction portion (14).

With respect to claim 16, the optical glass would inherently optically transmissible for light of the claimed wavelength.

With respect to claims 17 and 18, the reference of Muller discloses the use of a stopper (80) for the receiving portion.

Inventorship

11. In view of the papers filed 28 April 200, the inventorship in this nonprovisional application has been changed by the deletion of Randy P. Rasmussen and David R. Hillyard.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.


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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Beisner
Primary Examiner
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WHB